

REMARKS

This amendment is submitted in response to the Examiner's Action dated April 27, 2005. Applicants have amended the claims to clarify key features of the invention and overcome the claim objections and rejections. No new matter has been added by these amendments. The amendments place the claims in better condition for allowance. Applicants respectfully request entry of the amendments to the claims. The discussion/arguments provided below in response to the claim rejections reference the claims in their amended form.

IN THE SPECIFICATION

In the present Office Action, Applicants have amended the specification to clarify what is meant by Applicants' use of the term "robust" within the specification and claims. The amendment clarifies the term and thus overcomes the specific 112 rejection. Applicants respectfully request entry of the amendments to the specification.

CLAIMS OBJECTIONS

In the present Office Action, Claims 1-3, 5-7, 10-15, 17, 19 and 20 are objected to because of informalities. Accordingly, Applicants have amended Claims 1-3, 5-7, 10-15, 17, 19 and 20 to remove all informality contained therein and overcome the claim objections. Applicants thus requests removal of the objections to the claims.

CLAIMS REJECTIONS UNDER 35 U.S.C. § 112

In the present Office Action, Claims 1-20 are rejected under 35 U.S.C. § 112, first paragraph. Further, Claims 3-8 and 10-20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants have amended the claims to (a) comply with the written description and (b) more distinctly claim the subject matter of the invention.

Notably, with respect to Applicants' use of the term robust, Applicants direct Examiner to <http://en.wikipedia.org/wiki/Robust>, which clearly defines "robust" as "[i]n computing terms, robustness is reliability or being available seven days a week, twenty-four hours a day." Given the context within which the term is utilized within Applicants' specification and claims (i.e., concluding the sequence "in-order execution, some out-of-order execution," it is clear that

Applicants' utilization of that term, in its most logical sense to one skilled in the art, given the above stated meaning is "**complete/full and reliable out-of-order execution.**"

Clarification of this term is provided within the specification in lieu of claim amendment. Where claims have been amended, the amendments overcome both §112 rejections, and Applicant respectfully requests reconsideration of the 112 rejections.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

In the present Office Action, Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *McCrory* (U.S. Patent No. 6,513,057) in view of *Derrick, et al.* (U.S. Patent No. 5,704,058) and further in view of *Cochcroft, Jr., et al.* (U.S. Patent No. 5,317,738). Further, Claims 1-7, 9-11, 13, 15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *McCrory* in view of *Derrick, et al.* in view of *Cochcroft, Jr., et al.*, and further in view of *Bacot, et al.* (U.S. Patent No. 5,235,687). Even further, Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *McCrory* in view of *Bacot* in view of *Derrick, et al.* in view of *Cochcroft, Jr., et al.*, as applied above, and further in view of *MacWilliams, et al.* (U.S. Patent No. 5,228,134).

Applicants hereby incorporate by reference the arguments previously proffered against *McCrory* and *Derrick*, which arguments clearly indicated that *McCrory* specifically and solely refers to a prefabricated heterogenous SMP with processors integrated on a single platform. Nothing within *McCrory* (nor *Derrick*) would suggest a later addition of a different heterogenous processor requiring advanced OS support.

In addition, the other cited references (and/or combinations of references) are devoid of any suggestion of that or other features of Applicants' claimed invention. For example, *Derrick* merely provides a description of a snoop protocol for a SMP that optimizes cache bus bandwidth with no consideration for a latter added processor changing the allocation scheme, since *Derrick's* deals solely with a static (never-expanding/changing) system of processors.

With respect to *Cochcroft*, it appears that Examiner has either mischaracterize what is provided by *Cochcroft* or fails comprehend what is being taught by Applicants claims. Examiner writes that *Cochcroft's* recitation of process identification code suggests Applicants' claimed "operating characteristics." This analysis is clearly incorrect. Operating characteristics specifically refers characteristics/parameters such as different processing speeds (frequency), different integrated circuit design, different cache topologies (sizes, levels, etc.).

Finally, *Bacot* provides a description of replacing a defective/bad processor within a system (when the processor breaks). *Bacot* most likely completes the replacement with a similar processor (exhibiting similar characteristics as the defective processor being replaced). No enhanced OS is required or other features for later adding a heterogenous processor and providing OS and other support for that newly added processor in addition to all other pre-existing processors. *Bacot* does not add another processor without first removing an existing processor because *Bacot's* system (like *McCrory's*) has no expansion mechanism for adding additional processors and *Bacot* never contemplates adding more processors or providing OS support for more processors or even adding heterogenous processor.

Given the above, it is clear that none of the key features of Applicant's claims are taught or suggested by any of the references or the combinations of references. The combinations do not suggest Applicants' claimed invention, and one skilled in the art would not find Applicants' invention unpatentable over the combination of references. The above claims are therefore allowable.

CONCLUSION

Applicants have diligently responded to the Office Action by amending the claims to clarify the features contained therein and to overcome claim objections and rejections. Applicants have also explained why the amended claims are not taught nor suggested by the references or combinations thereof. Since the amendments overcome the objections, and the §112 and § 103 rejections, Applicants, respectfully request issuance of a Notice of Allowance for all claims now pending.

Applicants also request the Examiner contact the undersigned attorney of record at 512.343.6116 if such would further or expedite the prosecution of the present Application.

Respectfully submitted,



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